

Sequence Listing

<110> Desnoyers,Luc
Eaton,Dan L.
Goddard,Audrey
Godowski,Paul J.
Gurney,Austin L.
Pan,James
Stewart,Timothy A.
Watanabe,Colin K.
Wood,William I.
Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME

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<150> 60/085579

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<211> 246

<212> PRT

<213> Homo Sapien

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Gln	Thr	Gly	Gly	Leu	Pro	Pro	Asp	Cys	Ser	Lys	Cys	Cys	His	Gly
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Met	Ala	Ser	Leu	Ala	Thr	His	Phe	Ser	Asn	Gln	Asn	Ser	Gly	Ile
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Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
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Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
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Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
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Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215					220					225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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gcaaaggtgg agaagcgttg gtgg 24

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cc 52

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 <212> PRT
 <213> Homo Sapien

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 35 40 45
 Ser Leu Pro Gly Phe Lys Glu Ile Val Ser Arg Gly Val Lys Val
 50 55 60
 Asp Tyr Leu Thr Pro Asp Phe Pro Ser Leu Ser Tyr Pro Asn Tyr
 65 70 75
 Tyr Thr Leu Met Thr Gly Arg His Cys Glu Val His Gln Met Ile
 80 85 90
 Gly Asn Tyr Met Trp Asp Pro Thr Thr Asn Lys Ser Phe Asp Ile
 95 100 105
 Gly Val Asn Lys Asp Ser Leu Met Pro Leu Trp Trp Asn Gly Ser

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Pro	Thr	Tyr	Cys	Leu 155	Glu	Tyr	Lys	Asn	Val 160	Pro	Thr	Asp	Ile	Asn 165
Phe	Ala	Asn	Ala	Val 170	Ser	Asp	Ala	Leu	Asp 175	Ser	Phe	Lys	Ser	Gly 180
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Gly	His	His	Tyr	Gly 200	Pro	Ala	Ser	Pro	Gln 205	Arg	Lys	Asp	Ala	Leu 210
Lys	Ala	Val	Asp	Thr 215	Val	Leu	Lys	Tyr	Met 220	Thr	Lys	Trp	Ile	Gln 225
Glu	Arg	Gly	Leu	Gln 230	Asp	Arg	Leu	Asn	Val 235	Ile	Ile	Phe	Ser	Asp 240
His	Gly	Met	Thr	Asp 245	Ile	Phe	Trp	Met	Asp 250	Lys	Val	Ile	Glu	Leu 255
Asn	Lys	Tyr	Ile	Ser 260	Leu	Asn	Asp	Leu	Gln 265	Gln	Val	Lys	Asp	Arg 270
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Ile	Tyr	Asn	Lys	Leu 290	Ser	Thr	Val	Glu	His 295	Met	Thr	Val	Tyr	Glu 300
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Val	Ser	Pro	Leu	Thr 320	Leu	Val	Ala	Asp	Glu 325	Gly	Trp	Phe	Ile	Thr 330
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Arg	Glu	Gly	Trp	Gln 350	Arg	Gly	Trp	His	Gly 355	Tyr	Asp	Asn	Glu	Leu 360
Met	Asp	Met	Arg	Gly 365	Ile	Phe	Leu	Ala	Phe 370	Gly	Pro	Asp	Phe	Lys 375
Ser	Asn	Phe	Arg	Ala 380	Ala	Pro	Ile	Arg	Ser 385	Val	Asp	Val	Tyr	Asn 390
Val	Met	Cys	Asn	Val 395	Val	Gly	Ile	Thr	Pro 400	Leu	Pro	Asn	Asn	Gly 405

Ser Trp Ser Arg Val Met Cys Met Leu Lys Gly Arg Ala Gly Thr
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 425 430 435

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<213> Homo Sapien

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 aactgtctac tcggctgagg aactgcccct cggccaggcc ccccccacacc 200
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 <213> Homo Sapien

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His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly	35	40	45	
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln	50	55	60	
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His	65	70	75	
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val	80	85	90	
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser	95	100	105	
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr	110	115	120	
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile	125	130	135	
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg	140	145	150	
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg	155	160	165	
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr	170	175	180	
Glu	Phe	Ile	His	Val	Pro	Val	Gly	Cys	Thr	Cys	Val	Leu	Pro	Arg	185	190	195	

Ser Val

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<220>
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<400> 13
 gggacgtgga tgaactcggg gtgg 24

<210> 14
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 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

<400> 14
 tatccacaga agctggcctt cgccgagtgc ctgtgcagag 40

<210> 15
 <211> 660
 <212> DNA
 <213> Homo Sapien

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<210> 16
 <211> 97

<212> PRT
<213> Homo Sapien

<400> 16

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35 40 45
His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp
50 55 60
Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile
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Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln
80 85 90
Thr Ser Leu Cys Asn His Asp
95

<210> 17
<211> 2570
<212> DNA
<213> Homo Sapien

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cctggcttgt gagagtgagg gaggagtcct cctcagcctt gagaatgaag 600
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<212> DNA
<213> Homo Sapien

<400> 22

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 50 55 60
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val
 65 70 75
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu
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 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His
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 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu
 125 130 135
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 155 160 165
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 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys
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 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe
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 215 220 225
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

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Leu	Glu	Lys	Lys	Lys 245	Ser	Asn	Ser	Asn	Ile 250	His	Pro	Ile	Phe	Ser 255
Trp	Cys	Gly	Ser	Thr 260	Asp	Ser	Lys	Asp	Ile 265	Val	Met	Pro	Thr	Tyr 270
Asp	Leu	Thr	Asp	Ser 275	Val	Leu	Glu	Thr	Met 280	Gly	Arg	Val	Ser	Leu 285
Asp	Met	Met	Ser	Val 290	Gln	Ala	Asn	Thr	Gly 295	Pro	Pro	Trp	Glu	Ser 300
Lys	Asn	Ser	Thr	Ala 305	Val	Trp	Arg	Gly	Arg 310	Asp	Ser	Arg	Lys	Glu 315
Arg	Leu	Glu	Leu	Val 320	Lys	Leu	Ser	Arg	Lys 325	His	Pro	Glu	Leu	Ile 330
Asp	Ala	Ala	Phe	Thr 335	Asn	Phe	Phe	Phe	Phe 340	Lys	His	Asp	Glu	Asn 345
Leu	Tyr	Gly	Pro	Ile 350	Val	Lys	His	Ile	Ser 355	Phe	Phe	Asp	Phe	Phe 360
Lys	His	Lys	Tyr	Gln 365	Ile	Asn	Ile	Asp	Gly 370	Thr	Val	Ala	Ala	Tyr 375
Arg	Leu	Pro	Tyr	Leu 380	Leu	Val	Gly	Asp	Ser 385	Val	Val	Leu	Lys	Gln 390
Asp	Ser	Ile	Tyr	Tyr 395	Glu	His	Phe	Tyr	Asn 400	Glu	Leu	Gln	Pro	Trp 405
Lys	His	Tyr	Ile	Pro 410	Val	Lys	Ser	Asn	Leu 415	Ser	Asp	Leu	Leu	Glu 420
Lys	Leu	Lys	Trp	Ala 425	Lys	Asp	His	Asp	Glu 430	Glu	Ala	Lys	Lys	Ile 435
Ala	Lys	Ala	Gly	Gln 440	Glu	Phe	Ala	Arg	Asn 445	Asn	Leu	Met	Gly	Asp 450
Asp	Ile	Phe	Cys	Tyr 455	Tyr	Phe	Lys	Leu	Phe 460	Gln	Glu	Tyr	Ala	Asn 465
Leu	Gln	Val	Ser	Glu 470	Pro	Gln	Ile	Arg	Glu 475	Gly	Met	Lys	Arg	Val 480
Glu	Pro	Gln	Thr	Glu 485	Asp	Asp	Leu	Phe	Pro 490	Cys	Thr	Cys	His	Arg 495
Lys	Lys	Thr	Lys	Asp 500	Glu	Leu								

$$\begin{array}{ll} \langle 210 \rangle & 41 \\ \langle 211 \rangle & 26 \end{array}$$

[illegible]

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<210> 45

<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

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Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala	20	25	30	
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro	35	40	45	
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu	50	55	60	
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala	65	70	75	
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met	80	85	90	
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe	95	100	105	
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys	110	115	120	
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg	125	130	135	
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln	140	145	150	
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr	155	160	165	
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr	170	175	180	

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 46

cgggactttc gctacctgtt gc 22

<210> 47

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 47

catcatattc cacaaaatgc ttgagg 26

<210> 48

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccggt ctcctgttcg ttcctctg 38

<210> 49
 <211> 918
 <212> DNA
 <213> Homo Sapien

<400> 49
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 agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100
 ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
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<210> 50
 <211> 251
 <212> PRT
 <213> Homo Sapien

<400> 50
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 1 5 10 15
 Ala Ala Leu Cys Leu Thr Gly Ser Gln Ala Leu Gln Cys Tyr Ser
 20 25 30

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 ctgctcctgg attcacatac cgggaatttg ctcacaaatg agaaactgga 450
 ccgagagaag ctgtgtggcc ctaaagagcc ctgtatgctg tatttcctaaa 500
 ttttaaatgga tgatcccttt cagatttacc gggctgagct gagagtcagg 550
 gatataaatg atcacgcgcc agtatttcag gacaaagaaa cagtcttaaa 600
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<210> 52
 <211> 800
 <212> PRT
 <213> Homo Sapien

<400> 52
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 20 25 30
 Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val
 35 40 45
 Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala
 50 55 60
 Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu
 65 70 75
 Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu
 80 85 90
 Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr
 95 100 105
 Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu
 110 115 120
 Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp
 125 130 135
 Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr
 140 145 150
 Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn
 155 160 165
 Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile
 170 175 180
 Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val
 185 190 195
 Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu
 200 205 210
 Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr
 215 220 225

Ala Phe Glu Phe Arg Val Gly Ala Thr Asp Arg Gly Ser Pro Ala	515	520	525
530	535	540	
Leu Ser Arg Glu Ala Leu Val Arg Val Leu Val Leu Asp Ala Asn	545	550	555
Asp Asn Ser Pro Phe Val Leu Tyr Pro Leu Gln Asn Gly Ser Ala	560	565	570
Pro Cys Thr Glu Leu Val Pro Arg Ala Ala Glu Pro Gly Tyr Leu	575	580	585
Val Thr Lys Val Val Ala Val Asp Gly Asp Ser Gly Gln Asn Ala	590	595	600
Trp Leu Ser Tyr Gln Leu Leu Lys Ala Thr Glu Pro Gly Leu Phe	605	610	615
Gly Val Trp Ala His Asn Gly Glu Val Arg Thr Ala Arg Leu Leu	620	625	630
Ser Glu Arg Asp Ala Ala Lys His Arg Leu Val Val Leu Val Lys	635	640	645
Asp Asn Gly Glu Pro Pro Arg Ser Ala Thr Ala Thr Leu His Leu	650	655	660
Leu Leu Val Asp Gly Phe Ser Gln Pro Tyr Leu Pro Leu Pro Glu	665	670	675
Ala Ala Pro Ala Gln Ala Gln Ala Glu Ala Asp Leu Leu Thr Val	680	685	690
Tyr Leu Val Val Ala Leu Ala Ser Val Ser Ser Leu Phe Leu Leu	695	700	705
Ser Val Leu Leu Phe Val Ala Val Arg Leu Cys Arg Arg Ser Arg	710	715	720
Ala Ala Ser Val Gly Arg Cys Ser Val Pro Glu Gly Pro Phe Pro	725	730	735
Gly His Leu Val Asp Val Arg Gly Ala Glu Thr Leu Ser Gln Ser	740	745	750
Tyr Gln Tyr Glu Val Cys Leu Thr Gly Gly Pro Gly Thr Ser Glu	755	760	765
Phe Lys Phe Leu Lys Pro Val Ile Ser Asp Ile Gln Ala Gln Gly	770	775	780
Pro Gly Arg Lys Gly Glu Glu Asn Ser Thr Phe Arg Asn Ser Phe	785	790	795
Gly Phe Asn Ile Gln	800		

<210> 53
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 54
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 54
 cagcatacag ggctcttttag ggcacac 27

<210> 55
 <211> 46
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 55
 cggtgactga ggaaacagag aaaggatcct ttgtgggtcaa tctggc 46

<210> 56
 <211> 2242
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 2181
 <223> unknown base

<400> 56
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 catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200
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 gctgctgctg gagcgcggca tgttctcctc accctccccg cccccggcgc 300
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cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400
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cagctgcccg atgggtcagag tcttccaata cctcccgta tcctggccga 550
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57

<211> 507

<212> PRT

<213> Homo Sapien

<400> 57

Met	Asp	Pro	Lys	Leu	Gly	Arg	Met	Ala	Ala	Ser	Leu	Leu	Ala	Val
1				5					10					15
Leu	Leu	Leu	Leu	Leu	Glu	Arg	Gly	Met	Phe	Ser	Ser	Pro	Ser	Pro
				20					25					30
Pro	Pro	Ala	Leu	Leu	Glu	Lys	Val	Phe	Gln	Tyr	Ile	Asp	Leu	His
				35					40					45
Gln	Asp	Glu	Phe	Val	Gln	Thr	Leu	Lys	Glu	Trp	Val	Ala	Ile	Glu
				50					55					60
Ser	Asp	Ser	Val	Gln	Pro	Val	Pro	Arg	Phe	Arg	Gln	Glu	Leu	Phe
				65					70					75
Arg	Met	Met	Ala	Val	Ala	Ala	Asp	Thr	Leu	Gln	Arg	Leu	Gly	Ala
				80					85					90
Arg	Val	Ala	Ser	Val	Asp	Met	Gly	Pro	Gln	Gln	Leu	Pro	Asp	Gly
				95					100					105
Gln	Ser	Leu	Pro	Ile	Pro	Pro	Val	Ile	Leu	Ala	Glu	Leu	Gly	Ser
				110					115					120
Asp	Pro	Thr	Lys	Gly	Thr	Val	Cys	Phe	Tyr	Gly	His	Leu	Asp	Val
				125					130					135
Gln	Pro	Ala	Asp	Arg	Gly	Asp	Gly	Trp	Leu	Thr	Asp	Pro	Tyr	Val
				140					145					150
Leu	Thr	Glu	Val	Asp	Gly	Lys	Leu	Tyr	Gly	Arg	Gly	Ala	Thr	Asp
				155					160					165
Asn	Lys	Gly	Pro	Val	Leu	Ala	Trp	Ile	Asn	Ala	Val	Ser	Ala	Phe

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln
 470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu
 485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His
 500 505

<210> 58
 <211> 1470
 <212> DNA
 <213> Homo Sapien

<400> 58
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 acactacctt cccgaagttg aaggcaagcg gtgattgttt gtagacggcg 100
 ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150
 ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
 gaacgcttgc ccagcaaagtg cgaagtgtgt aagctgctga gcacagagct 250
 acaggcgga ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
 ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
 tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400
 ggactatagt gttcacgctg agcgcaaggg ctactgaga tatgccaagg 450
 gtcagagtca gaccatggca aactgaaag gcctagtga gaagggggtg 500
 aagtggtgac tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
 ggtcacatac ctcaagaagc agtgtgagac catgttgag gagtttgaag 600
 acattgtggg agactggtag ttccaccatc aggagcagcc cctacaaaat 650
 tttctctgtg aaggtcatgt gctcccagct gctgaaactg catgtctaca 700
 ggaaaacttg actggaaagg agatcacaga tggggaagag aaaacagaag 750
 gggaggaaga gcaggaggag gaggaggaag aggaggaaga ggaaggggga 800
 gacaagatga ccaagacagg aagccacccc aaacttgacc gagaagatct 850
 ttgacccttg cctttgagcc ccaggaggg gaagggatca tggagagccc 900
 tctaaagcct gactctccc tgctccacag ctttcagggt gtgtttatga 950
 gtgactccac ccaagcttgt agctgttctc tccatctaa cctcaggcaa 1000
 gatcctggtg aaacagcatg acatggcttc tggggtggag ggtgggggtg 1050
 gaggtcctgc tctagagat gaactctatc cagcccctta attggcaggt 1100

gtatgtgctg acagtactga aagctttcct ctttaactga tcccaccccc 1150
 acccaaaagt cagcagtggc actggagctg tgggctttgg ggaagtcact 1200
 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350
 gataatttag gtgggataga tacttgggtct acttaagctc aatgtaaccc 1400
 agagcccacc atatagtttt ataggtgctc aactttctat atcgctatta 1450
 aacttttttc tttttttcta 1470

<210> 59
 <211> 248
 <212> PRT
 <213> Homo Sapien

<400> 59
 Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala
 1 5 10 15
 Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp
 20 25 30
 Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser
 35 40 45
 Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu
 50 55 60
 Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg
 65 70 75
 His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu
 80 85 90
 Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu
 95 100 105
 Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met
 110 115 120
 Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu
 125 130 135
 Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr
 140 145 150
 Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp
 155 160 165
 Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln
 170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60
 <211> 890
 <212> DNA
 <213> Homo Sapien

<400> 60
 aagtacttgt gtccgggtgg tggactggat tagctgcgga gccctggaag 50
 ctgcctgtcc ttctccctgt gcttaaccag aggtgcccat gggttggaca 100
 atgaggctgg tcacagcagc actgttactg ggtctcatga tgggtgtcac 150
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttgacg 200
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250
 aacattggct gcaaggttgt toctgattgt aacaactaca gacagaagat 300
 cacctcctgg atggagccga tagtcaagtt cccggggggcc gtggacggcg 350
 caacctatat cctggatgat gtggatccag atgcccctag cagagcagaa 400
 cccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450
 cgacctgaag aaagggaaga ttcaggggcca ggagttatca gcctaccagg 500
 ctccctcccc accggcacac agtggcttcc atcgctacca gttctttgtc 550
 tatcttcagg aaggaaaagt catctctctc ctccccagg aaaacaaaac 600
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650
 aacctgaagc aagcaccag ttcattgaccc agaactacca ggactcacca 700
 acctccagg ctcccagagg aagggccagc gagcccaagc aaaaaaccag 750
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggataca 850
 gaacccttc ttttccaaat taaaaaaaa aatcatcaaa 890

<210> 61

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val	1	5	10	15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu	20	25	30	
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln	35	40	45	
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro	50	55	60	
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln	65	70	75	
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly	80	85	90	
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile	95	100	105	
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu	110	115	120	
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	125	130			

<210> 64
 <211> 999
 <212> DNA
 <213> Homo Sapien

<400> 64
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 gtgctgctgc tgcctctggc gggagccccc gccgcgcggc ccactccccc 100
 gacctgctac tcccgcacgc gggccctgag ccaggagatc acccgcgact 150
 tcaacctcct gcaggctctcg gagccctcgg agccatgtgt gagatacctg 200
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250
 ggactttgtg gcctcgcccc cgtggttgaa agtggcccag gtagattcct 300
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400
 cccagtgact acggtcctgc cagatcgta gcgctaaggg aactgagacc 450
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550
 gttatgtatc tctctacctt ctggaaaaca gggctggat tcctaccag 600
 gaacctcctt tgagcataga gtttagcaacc atgcttctca ttcccttgac 650

tcattgtcttg ccaggatggt tagatacaca gcatgttgat ttggtcacta 700
aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
ctttcattga aagggtgatga aaatcaaata aagaatctct tcacatgga 999

<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Leu Ala
1 5 10 15
Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
20 25 30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
35 40 45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
50 55 60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
65 70 75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
80 85 90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
95 100 105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
110 115 120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
125 130 135

Arg

<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

tctacctgga gacttgactc ccgcgcgccc caacctgtct tatcccttga 100
ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc ccctctcccg 150
ccccacaccc accctcctgg ctcttctctgt ttttactcct ccttttcatt 200
cataacaaaa gctacagctc caggagccca gcgccgggct gtgacccaag 250
ccgagcgtgg aagaatgggg ttcctcgga cgggcacttg gattctggtg 300
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350
atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400
ttgtgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500
ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
gctccccact tgataataag ttgaatgttg aagatgttga ttcaaccaag 600
aatcgaaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
taaatattcaa gatgatccag atggtcttca tcaactagac gggactcctt 700
taaccgctga agacattgtc cataaaatcg ctgccaggat ttatgaagaa 750
aatgacagag ccgtgtttga caagattgtt tctaaactac ttaatctcgg 800
ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
actaaaacct acagtgaaga caactttgag gaactccaat atttcccaaa 1100
tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200
atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala Glu	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu Glu	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly Lys	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly Leu	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr Leu	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp Asn	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu Lys	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu Ile	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val Lys	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu Asn	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu Lys	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser Glu	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala Lys	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp Asp	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys Thr	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu Lys	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser Lys	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu Lys	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile Tyr	455	460	465
Ser Ser Leu					

<210> 68
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 68
 cgtcacagga acttcagcac cc 22

<210> 69
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 69
 gtcttggctt cctccaggtt tgg 23

<210> 70
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 70
 ggacagcgct cccctctacc tggagacttg actcccgc 38

<210> 71
 <211> 2379
 <212> DNA
 <213> Homo Sapien

<400> 71
 gttgctccgg cggcgctcgg ggagggagcc agcagcctag ggccctaggcc 50
 cggggccacca tggcgctgcc tccaggccca gccgccctcc ggcacacact 100
 gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150
 aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200
 cagccttca cctgccgggt ggcagggggg cctggcacc ccagattggc 250
 ctggtatctg gatggacagc tgcaggaggc cagcacctca agactgctga 300
 gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350
 gcccatcggg cccagcatga gctcaactgc tctctgcagg accccagaag 400
 tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgccca	agtcggcgcc	aagtaccagg	aagctcaggg	cccaggcctc	500
ctggttgctc	tgtttgccct	ggtgctgtgc	aacccgccgg	ccaatgtcac	550
ctggatcgac	caggatgggc	cagtgactgt	caacacctct	gacttcctgg	600
tgctggatgc	gcagaactac	ccctggctca	ccaaccacac	ggtgcagctg	650
cagctccgca	gcctggcaca	caacctctcg	gtggtggcca	ccaatgacgt	700
gggtgtcacc	agtgcgtcgc	ttccagcccc	aggcccctcc	cggcacccat	750
ctctgatatc	aagtgactcc	aacaacctaa	aactcaacaa	cgtgcgcctg	800
ccacgggaga	acatgtccct	cccgctcaac	cttcagctca	atgacctcac	850
tccagattcc	agagcagtga	aaccagcaga	ccggcagatg	gctcagaaca	900
acagccggcc	agagcttctg	gacccggagc	ccggcggcct	cctcaccagc	950
caaggtttca	tccgcctccc	agtgcctggg	tatatctatc	gagtgtccag	1000
cgtgagcagt	gatgagatct	ggctctgagc	cgagggcgag	acaggagtat	1050
tctcttggcc	tctggacacc	ctcccattcc	tccaaggcat	cctctaccta	1100
gctaggtcac	caacgtgaag	aagttatgcc	actgccactt	ttgcttgccc	1150
tcctggctgg	ggtgccctcc	atgtcatgca	cgtgatgcat	ttcactgggc	1200
tgtaaccgcg	aggggcacag	gtatctttgg	caaggctacc	agttggacgt	1250
aagcccctca	tgctgactca	gggtggggcc	tgcatgtgat	gactggggcc	1300
ttccagaggg	agctctttgg	ccaggggtgt	tcagatgtca	tccagcatcc	1350
aagtgtggca	tggcctgctg	tataccccac	cccagtactc	cacagcacct	1400
tgtacagtag	gcatgggggc	gtgcctgtgt	gggggacagg	gagggccctg	1450
catggatttt	cctccttcct	atgctatgta	gccttgttcc	ctcaggtaaa	1500
atttaggacc	ctgctagctg	tgcagaaccc	aattgccctt	tgcacagaaa	1550
ccaaccctg	accagcggt	accggccaag	cacaaacgtc	ctttttgctg	1600
cacacgtctc	tgcccttcac	ttctttctct	ctgtccccac	ctcctcttgg	1650
gaattctagg	ttacacgttg	gaccttctct	actacttcac	tgggcactag	1700
acttttctat	tggcctgtgc	catcgcccag	tattagcaca	agttagggag	1750
gaagaggcag	gcatgagtc	tagtagcacc	caggacggct	tgtagctatg	1800
catcattttc	ctacggcggt	agcactttaa	gcacatcccc	taggggaggg	1850
ggtgagttag	gggccagag	ccctctttgt	ggcttcccca	cgtttggcct	1900

tctgggattc actgtgagtg tcttgagctc tcgggggttga tggtttttct 1950
ctcagcatgt ctctccacc acgggacccc agccctgacc aacccatggt 2000
tgccatcatca gcaggaaggt gcccttcttg gaggatggtc gccacaggca 2050
cataattcaa cagtgtggaa gcttttagggg aacatggaga aagaaggaga 2100
ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaa 2150
gattggaaat taatatagta cagaatatat ttttccttg ttgagatctt 2200
cttttgtaat gtttttcatg ttactgccta gggcgggtgct gagcacacag 2250
caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72
<211> 322
<212> PRT
<213> Homo Sapien

<400> 72
Met Ala Leu Pro Pro Gly Pro Ala Ala Leu Arg His Thr Leu Leu
1 5 10 15
Leu Leu Pro Ala Leu Leu Ser Ser Gly Trp Gly Glu Leu Glu Pro
20 25 30
Gln Ile Asp Gly Gln Thr Trp Ala Glu Arg Ala Leu Arg Glu Asn
35 40 45
Glu Arg His Ala Phe Thr Cys Arg Val Ala Gly Gly Pro Gly Thr
50 55 60
Pro Arg Leu Ala Trp Tyr Leu Asp Gly Gln Leu Gln Glu Ala Ser
65 70 75
Thr Ser Arg Leu Leu Ser Val Gly Gly Glu Ala Phe Ser Gly Gly
80 85 90
Thr Ser Thr Phe Thr Val Thr Ala His Arg Ala Gln His Glu Leu
95 100 105
Asn Cys Ser Leu Gln Asp Pro Arg Ser Gly Arg Ser Ala Asn Ala
110 115 120
Ser Val Ile Leu Asn Val Gln Phe Lys Pro Glu Ile Ala Gln Val
125 130 135
Gly Ala Lys Tyr Gln Glu Ala Gln Gly Pro Gly Leu Leu Val Val
140 145 150
Leu Phe Ala Leu Val Arg Ala Asn Pro Pro Ala Asn Val Thr Trp
155 160 165

$\langle 211 \rangle$ 221

<213> Homo Sapien

Met Trp Ser Ala Gly Arg Gly Gly Ala Ala Trp Pro Val Leu Leu
1 5 10 15

Thr Gly Ala Glu Leu Val Thr Cys Gly Ser Val Leu Lys Leu Leu
35 40 45

Gly Ser Gly Ser Gly Gln Gln Ser Val Thr Gly Val Glu Ala Ser
65 70 75

Gly Cys Pro Arg Gly Ser Pro Val Arg Cys Gly Gln Ala Val Arg
95 100 105

Pro Ser Pro Leu Ser Asn Asn Gln Glu Val Ser Ala Phe Gly Glu
125 130 135

Gly Gln His Trp Glu Arg Glu Ala Ala Val Arg Phe Gln His Val
155 160 165

Pro Ile Arg Gly Gln His Glu Val His Gly Met Pro Ser Ala Asn
185 190 195

Thr	His	Asn	Thr	Trp	Lys	Ala	Met	Glu	Gly	Ile	Phe	Ile	Lys	Pro
				200					205					210

Ser	Val	Glu	Pro	Ser	Ala	Gly	His	Asp	Glu	Leu
				215					220	

<210> 75
 <211> 1049
 <212> DNA
 <213> Homo Sapien

<400> 75
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 ttggaaccac agacgtgagc cactccaccc agcctaaaac ttcattcttct 100
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150
 ctgtgggctc accacctota aggaggagca ctgactgaag acagaaaaat 200
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250
 gctttgggaa ttccaaagta ctcagtggag agaggtgttt caggagccgt 300
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450
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